

AMENDMENTS TO THE CLAIMS

CLAIM 1 (CURRENTLY AMENDED): A bicycle charge control circuit for receiving electric power from a bicycle dynamo and for controlling the operation of a lamp and a charging circuit, the circuit comprising:

- a first lamp switch for selectively providing power from the dynamo to the lamp;
- a battery charged by the dynamo; and
- a lamp control circuit operatively coupled to the first lamp switch and to the battery to control the first lamp switch to intermittently supply power to the lamp ~~when~~ from the dynamo while the battery voltage is below a selected value so that the lamp is illuminated while the battery voltage is below the selected value and the dynamo is intermittently supplying power.

CLAIM 2 (ORIGINAL): The circuit according to claim 1 further comprising a rectifier that rectifies power from the dynamo to the battery.

CLAIM 3 (ORIGINAL): The circuit according to claim 2 wherein the lamp control circuit controls the first lamp switch to supply power to the lamp at intervals approximately equal to half-cycles of the output voltage of the dynamo.

CLAIM 4 (ORIGINAL): The circuit according to claim 1 further comprising:

- a charging switch for selectively providing power from the dynamo to the battery; and
- a charging switch control circuit that controls the operation of the charging switch.

CLAIM 5 (PREVIOUSLY PRESENTED): The circuit according to claim 4 wherein the charging switch comprises a charging transistor, and wherein the charging switch control circuit comprises:

- a first capacitor charged by current output by the dynamo during one of a positive half-cycle and a negative half-cycle thereof; and
- a second capacitor charged by current output by the dynamo during the other one of the positive half cycle and the negative half-cycle thereof as well as by current from the first capacitor;

wherein voltage from at least one of the first and second capacitors is applied to a control terminal of the charging transistor.

CLAIM 6 (PREVIOUSLY PRESENTED): The circuit according to claim 5 wherein the first capacitor is charged by current output by the dynamo during the positive half-cycle thereof, and wherein the second capacitor is charged by current output by the dynamo during the negative half-cycle thereof as well as current from the first capacitor.

CLAIM 7 (PREVIOUSLY PRESENTED): The circuit according to claim 1 wherein the battery comprises a battery capacitor.

CLAIM 8 (ORIGINAL): The circuit according to claim 1 wherein the first lamp switch comprises a first lamp transistor.

CLAIM 9 (PREVIOUSLY PRESENTED): The circuit according to claim 8 further comprising a second lamp transistor connected in series with the first lamp transistor, and wherein the lamp control circuit controls the second lamp transistor based on a voltage of the battery.

CLAIM 10 (PREVIOUSLY PRESENTED): A bicycle charge control circuit for receiving electric power from a bicycle dynamo and for controlling the operation of a lamp and a charging circuit, the circuit comprising:

- a lamp switch for selectively providing power from the dynamo to the lamp;

- a battery charged by the dynamo; and

- a lamp control circuit operatively coupled to the lamp switch and to the battery to control the lamp switch to intermittently supply power to the lamp when a battery voltage is below a selected value, wherein the lamp control circuit comprises:

- a first capacitor;

- a first diode coupled for communicating power from the dynamo to the first capacitor during one of a positive half-cycle and a negative half-cycle of the dynamo;

- a second capacitor; and

- a second diode coupled for communicating power from the dynamo to the second capacitor during the other one of the positive half-cycle and the negative half-cycle of the

dynamo as well as current from the first capacitor.

CLAIM 11 (PREVIOUSLY PRESENTED): A bicycle charge control circuit for receiving electric power from a bicycle dynamo and for controlling the operation of a lamp and a charging circuit, the circuit comprising:

a lamp switch for selectively providing power from the dynamo to the lamp;

a battery charged by the dynamo; and

a lamp control circuit operatively coupled to the lamp switch and to the battery to control the lamp switch to intermittently supply power to the lamp when a battery voltage is below a selected value, wherein the lamp control circuit comprises:

a first capacitor;

a first diode coupled for communicating power from the dynamo to the first capacitor during one of a positive half-cycle and a negative half-cycle of the dynamo;

a second capacitor;

a second diode coupled for communicating power from the dynamo to the second capacitor during the other one of the positive half-cycle and the negative half-cycle of the dynamo as well as current from the first capacitor; and

wherein the battery comprises a third capacitor.

CLAIM 12 (PREVIOUSLY PRESENTED): The circuit according to claim 11 further comprising a first transistor for selectively providing power from the dynamo to the battery, wherein voltage from at least one of the first and second capacitors is applied to a control terminal of the first transistor.

CLAIM 13 (PREVIOUSLY PRESENTED): The circuit according to claim 12 wherein the lamp switch comprises a second transistor having a control terminal coupled for receiving a voltage from the second capacitor.

CLAIM 14 (ORIGINAL): The circuit according to claim 13 wherein the lamp switch comprises a third transistor coupled in series with the second transistor, wherein the third transistor

has a control terminal coupled to the lamp control circuit so that the third transistor is turned on when the battery voltage is above the selected value.

CLAIM 15 (ORIGINAL): The circuit according to claim 14 further comprising a third diode for rectifying power from the dynamo to the battery.

CLAIM 16 (ORIGINAL): The circuit according to claim 15 further comprising a fourth diode coupled in parallel with the third transistor for allowing current to flow to the lamp during one of the positive half-cycle and the negative half-cycle of the dynamo.

CLAIM 17 (ORIGINAL): The circuit according to claim 16 further comprising a fifth diode coupled in parallel with the second transistor.